TOZOFT "EHT98660

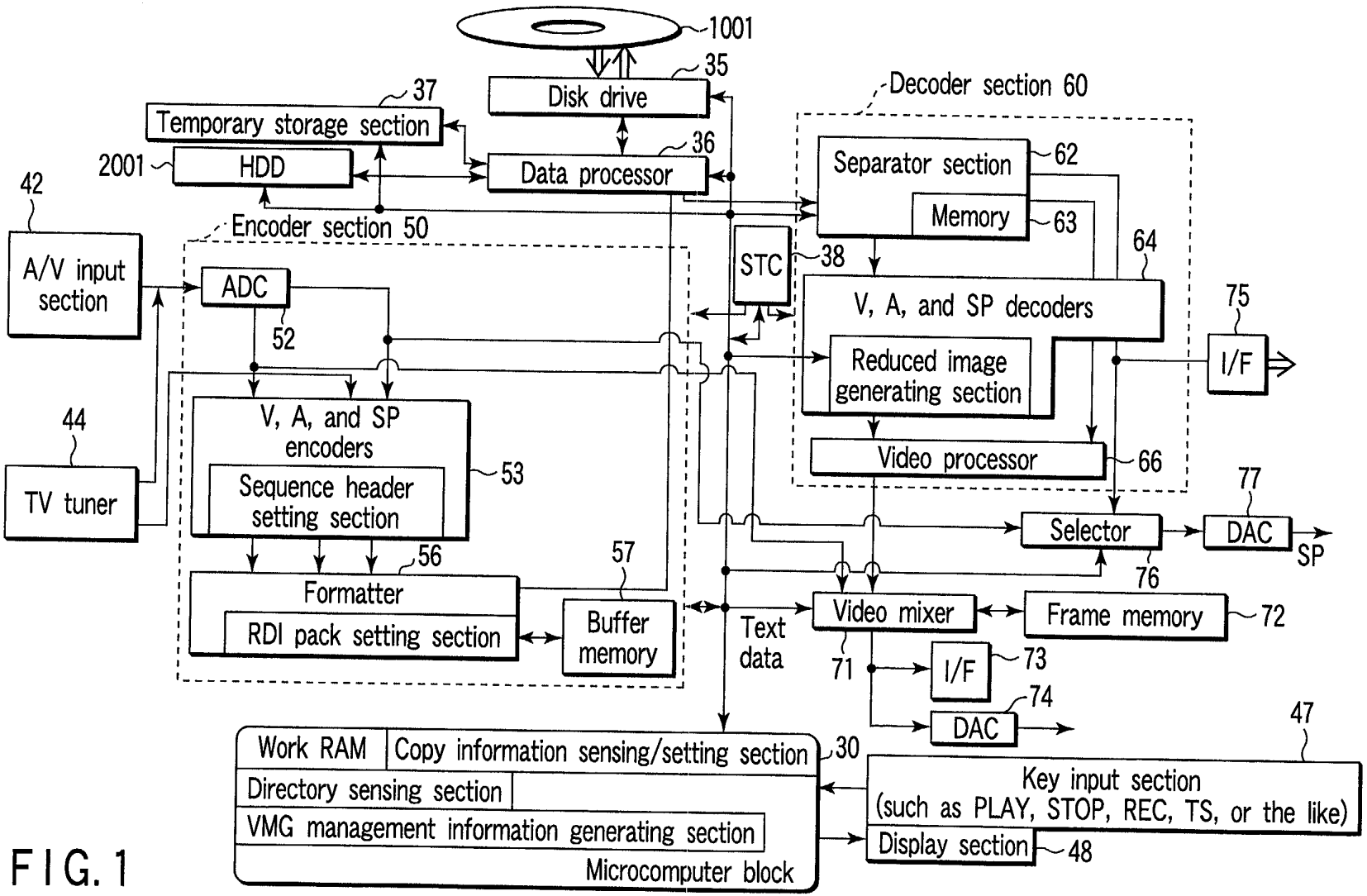
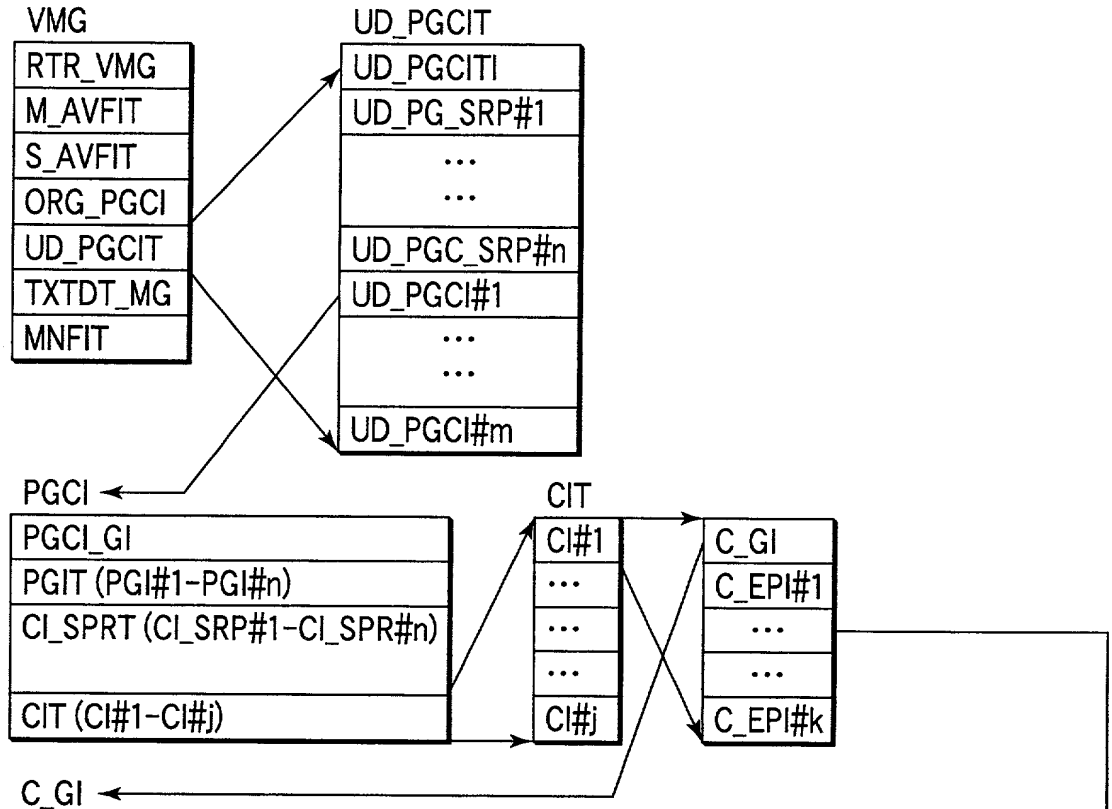


FIG. 1

EP0790615A1



C_GI

RBP		Contents	Number of bytes
0 to 0	reserved		
1 to 1	C_TY	00 : Movie cell, 20 (h) : still picture cell	
2 to 3	C_EPI_Ns	VOBI search pointer number	
4 to 5	C_EPI_Ns	Number of entry points	
6 to 11	C_V_S_PTM	Cell reproduction start time	
12 to 17	C_V_E_PTM	Cell reproduction end time	
		Total	18

C_EPI

RBP		Contents	Number of bytes
0 to 0	EP_TY	0 : PRW_TXTI is absent, 1 : PRW_TXTI is present	
1 to 6	EP_PTM	EP reproduction time	
7 to 134	PRW_TXTI	Text information	
		Total	135

FIG. 2

TOKOFF "EN199660

PGIT

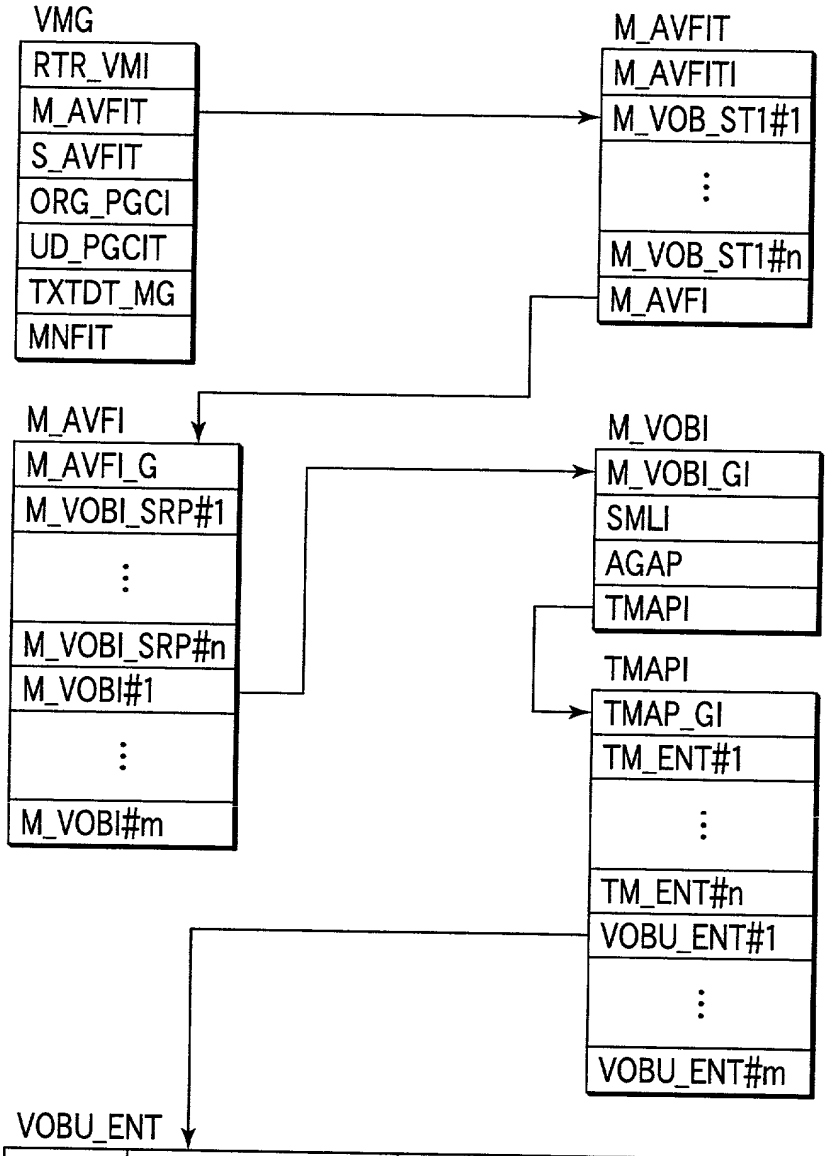
PGI #1
⋮
PGI #m

PGI

RBP		Contents	Number of bytes
0 to 0	reserved		1
1 to 1	PC_TY	00h : Erasable PG 80h : Unerasable PG	1
2 to 3	c_Ns	Number of cells belonging to this PG	2
4 to 131	PRM_TXTI	Mandatory text information	128
132 to 133	IT_TXT_SRPN	Pointer number for text information	2
134 to 141	REP_PICTI	Cell numbers with various representatives & pointer in the cell	8
		Total	142

FIG. 3

EP 2 071 574 A1



VOBU_ENT

RBP		Contents	Number of bytes
0 to 0	1 STREF_SZ	Final address of one picture from the start of VOBU	
1 to 1	VOBU_PBTM, VOBU_SZ (upper)	The VOBU reproduction time (b7-b2)	
2 to 2	VOBU_SZ (lower)	The VOBU size (10 bits)	
		Total	3

FIG. 4

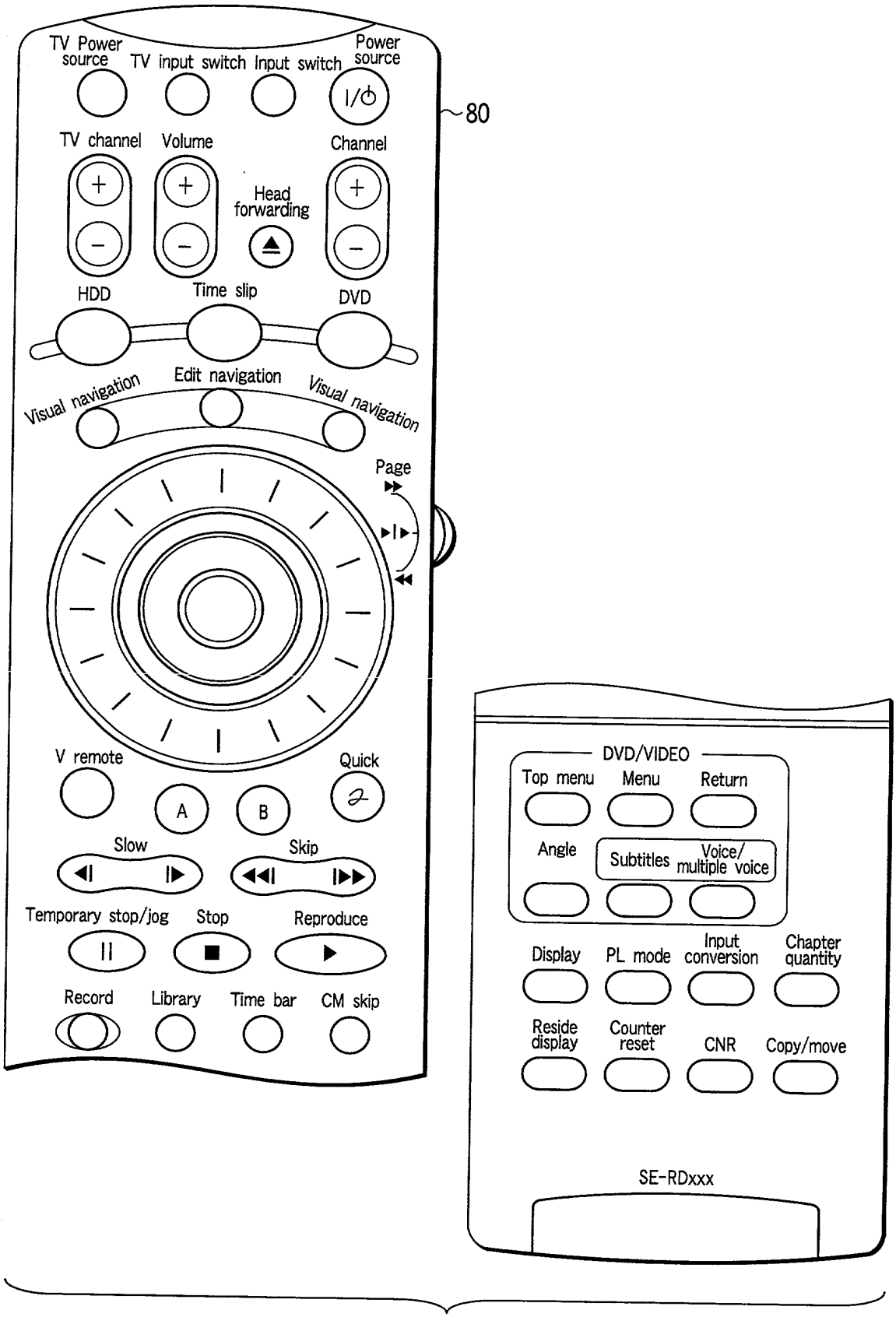

TV Power source
TV input switch
Input switch
Power source
80
TV channel
Volume
Head forwarding
Channel
HDD
Time slip
DVD
Visual navigation
Edit navigation
Visual navigation
Page
V remote
Quick
A
B
Slow
Skip
Temporary stop/jog
Stop
Reproduce
Record
Library
Time bar
CM skip
DVD/VIDEO
Top menu
Menu
Return
Angle
Subtitles
Voice/ multiple voice
Display
PL mode
Input conversion
Chapter quantity
Reside display
Counter reset
CNR
Copy/move
SE-RDxxx

FIG. 5

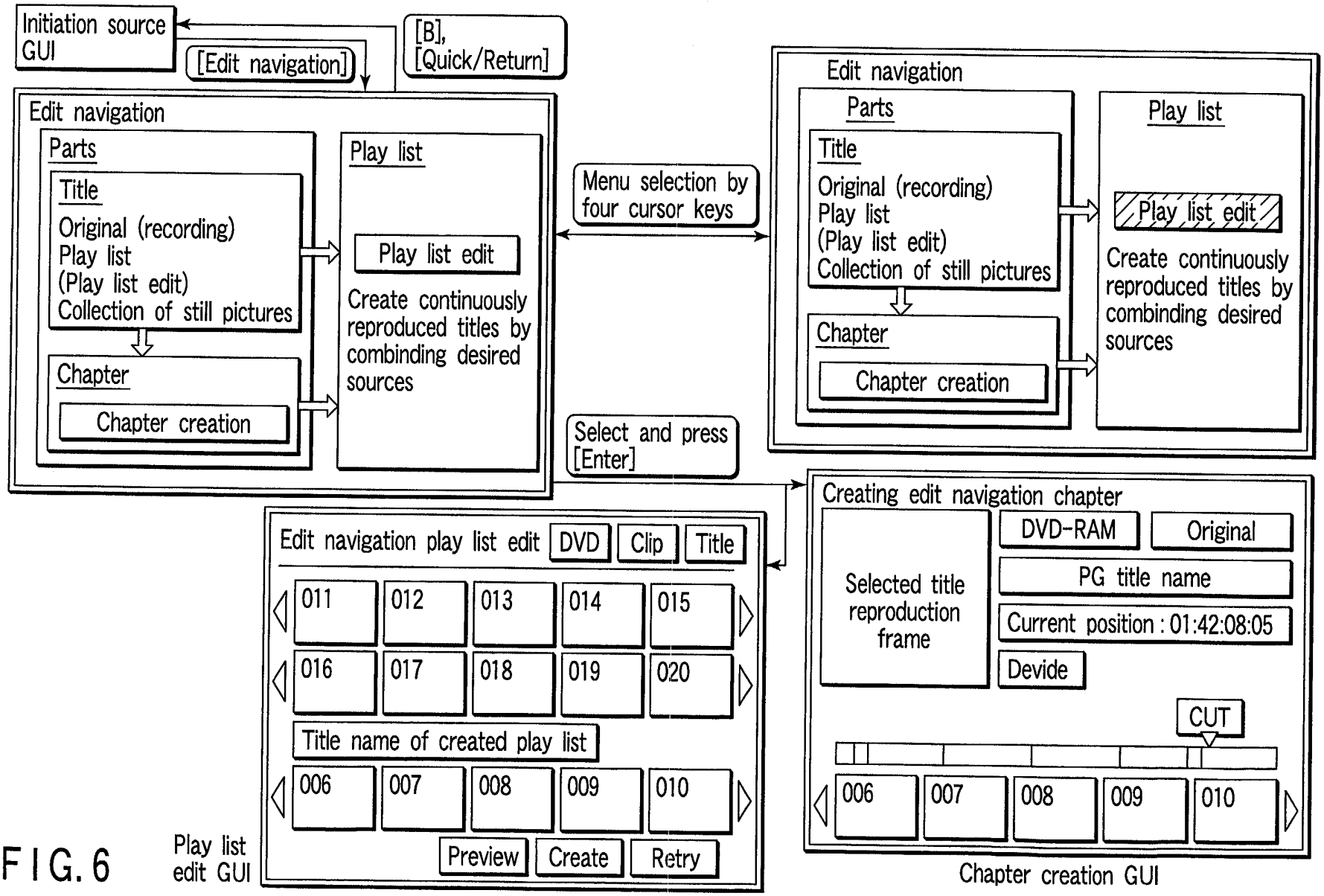

Initiation source GUI
[Edit navigation]
[B], [Quick/Return]
Edit navigation
Parts
Title
Original (recording)
Play list
(Play list edit)
Collection of still pictures
Chapter
Chapter creation
Play list
Play list edit
Create continuously reproduced titles by combinding desired sources
Menu selection by four cursor keys
Edit navigation
Parts
Title
Original (recording)
Play list
(Play list edit)
Collection of still pictures
Chapter
Chapter creation
Play list
Play list edit
Create continuously reproduced titles by combinding desired sources
Select and press [Enter]
Edit navigation play list edit
DVD
Clip
Title
011
012
013
014
015
016
017
018
019
020
Title name of created play list
006
007
008
009
010
Preview
Create
Retry
Play list edit GUI
Creating edit navigation chapter
Selected title reproduction frame
DVD-RAM
Original
PG title name
Current position : 01:42:08:05
Devide
CUT
006
007
008
009
010
Chapter creation GUI

FIG. 6

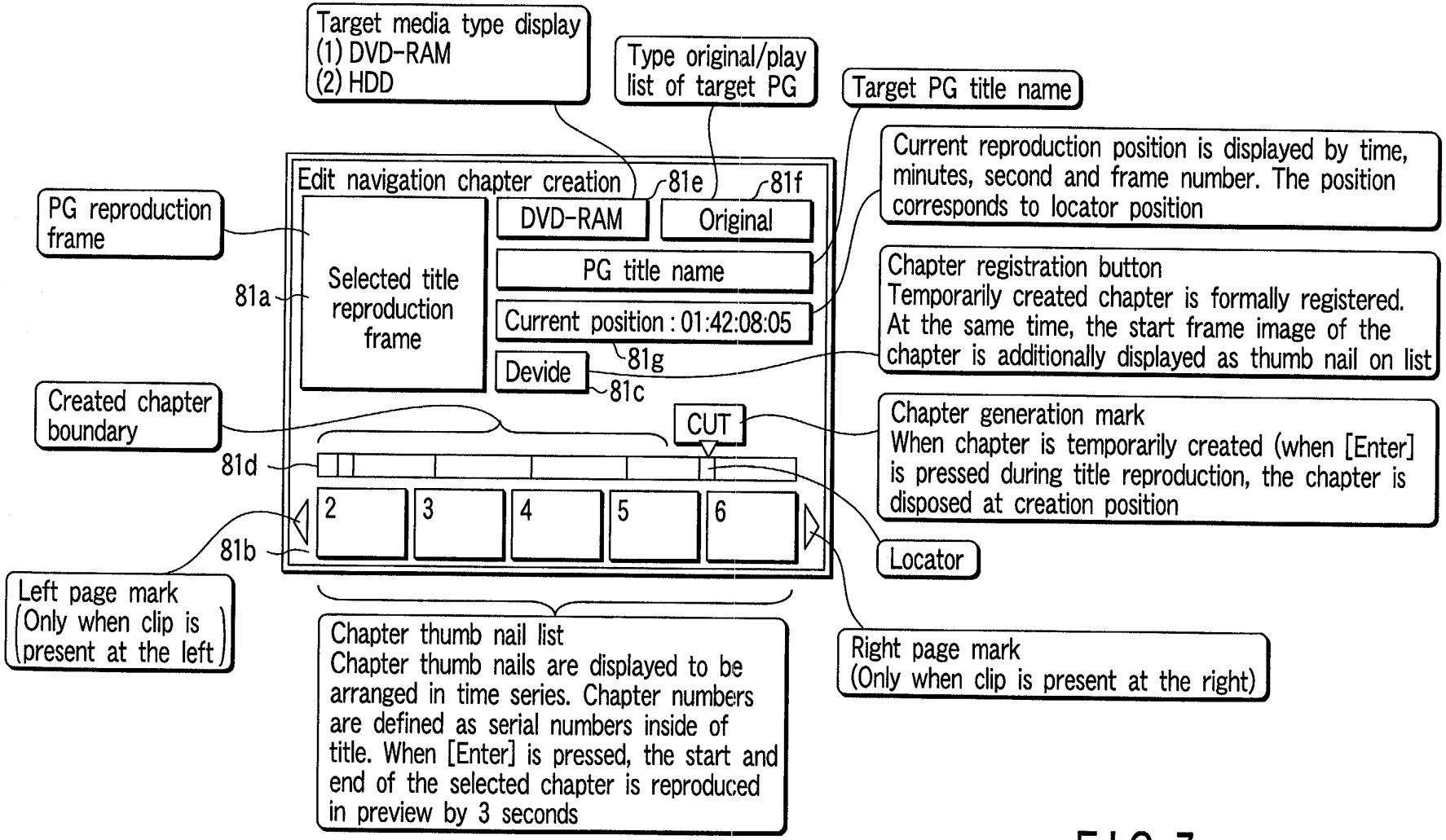

Target media type display
(1) DVD-RAM
(2) HDD
Type original/play list of target PG
Target PG title name
Current reproduction position is displayed by time, minutes, second and frame number. The position corresponds to locator position
Edit navigation chapter creation
81e
81f
DVD-RAM
Original
PG reproduction frame
Selected title reproduction frame
PG title name
81a
Current position : 01:42:08:05
81g
Devide
81c
Chapter registration button
Temporarily created chapter is formally registered. At the same time, the start frame image of the chapter is additionally displayed as thumb nail on list
Created chapter boundary
CUT
Chapter generation mark
When chapter is temporarily created (when [Enter] is pressed during title reproduction, the chapter is disposed at creation position
81d
2
3
4
5
6
81b
Locator
Left page mark
(Only when clip is present at the left)
Chapter thumb nail list
Chapter thumb nails are displayed to be arranged in time series. Chapter numbers are defined as serial numbers inside of title. When [Enter] is pressed, the start and end of the selected chapter is reproduced in preview by 3 seconds
Right page mark
(Only when clip is present at the right)

FIG. 7

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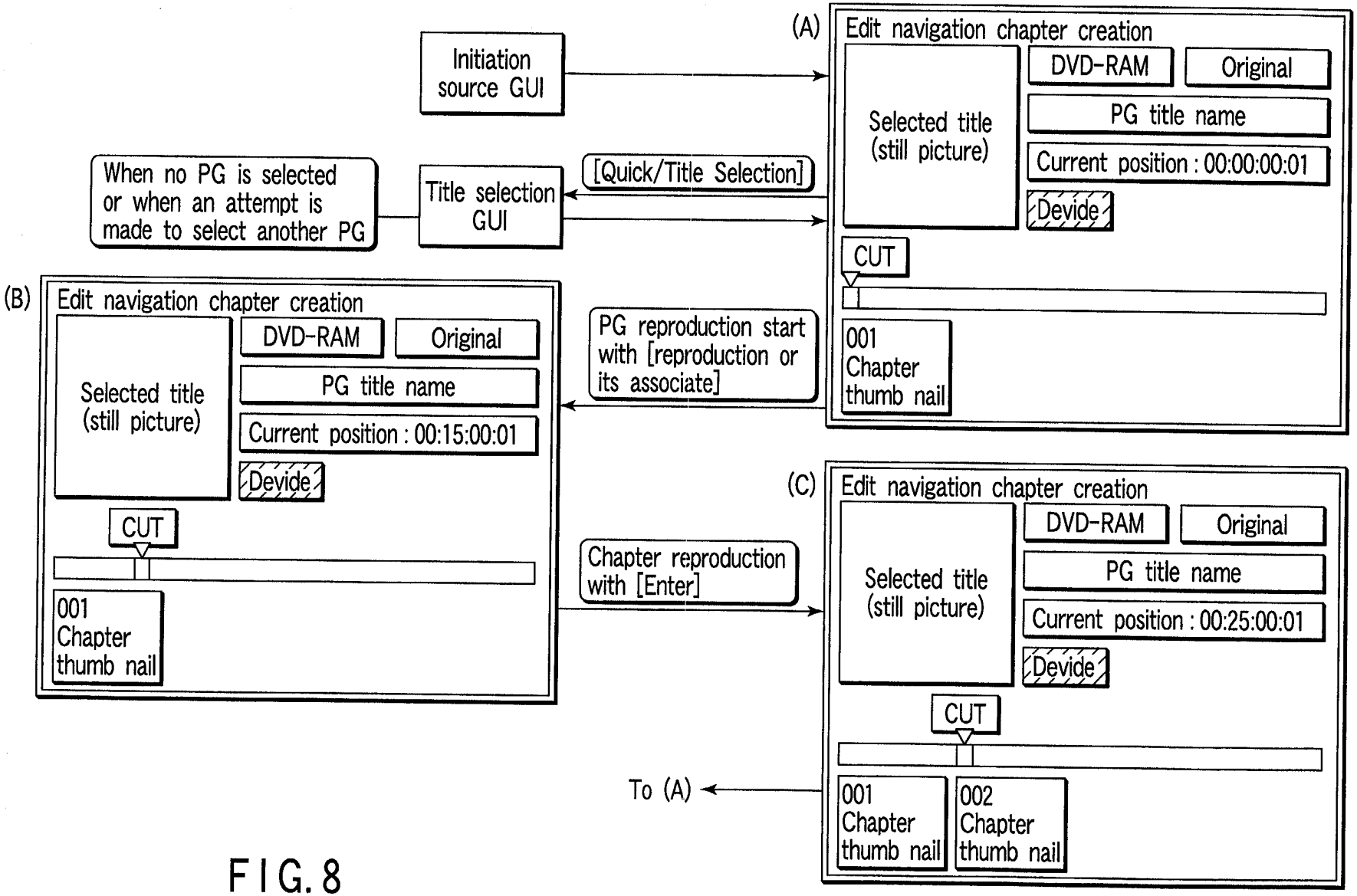

FIG. 8

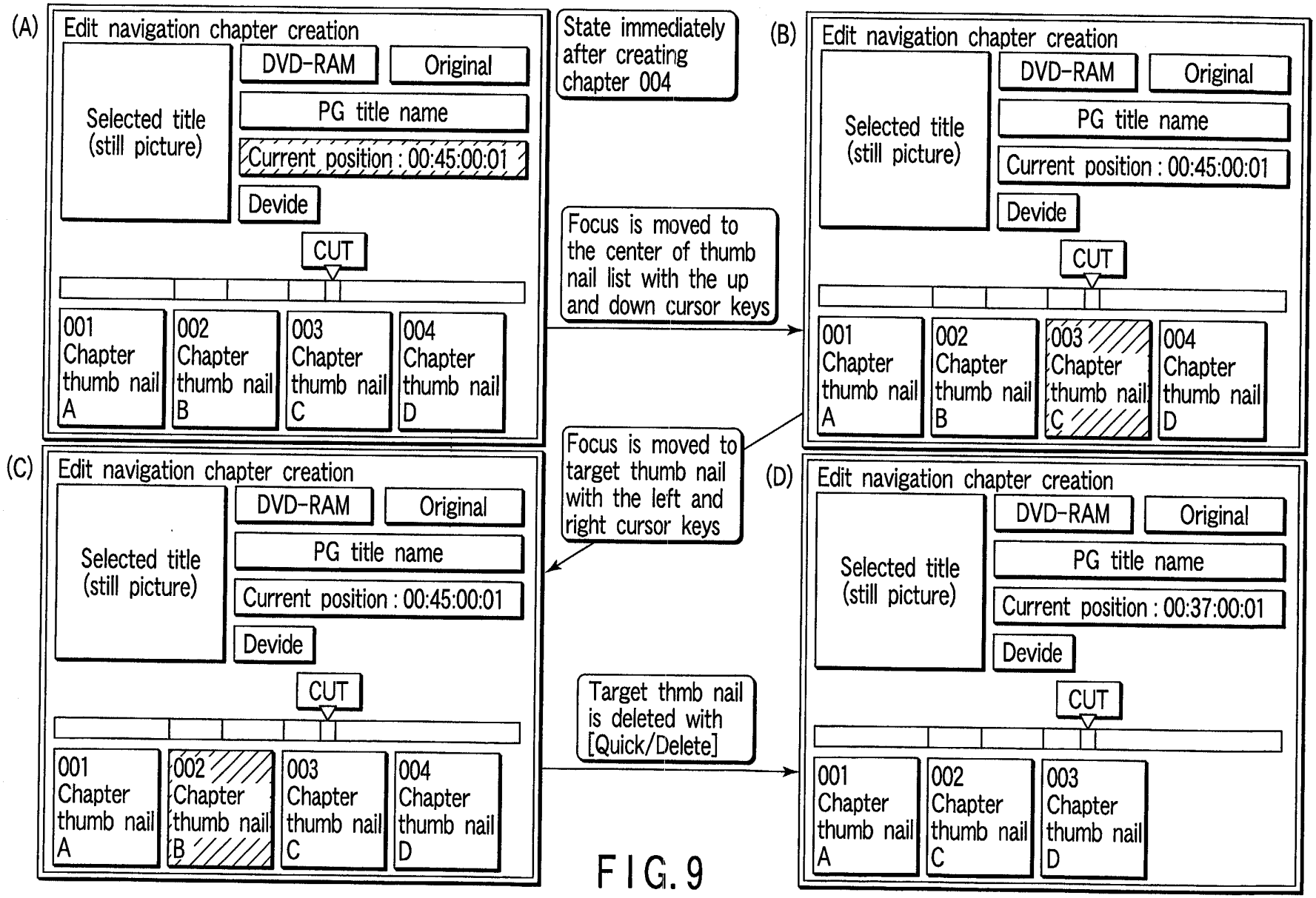
(A)
Edit navigation chapter creation
Selected title (still picture)
DVD-RAM
Original
PG title name
Current position : 00:45:00:01
Devide
CUT
001 Chapter thumb nail A
002 Chapter thumb nail B
003 Chapter thumb nail C
004 Chapter thumb nail D
State immediately after creating chapter 004
Focus is moved to the center of thumb nail list with the up and down cursor keys
(B)
Edit navigation chapter creation
Selected title (still picture)
DVD-RAM
Original
PG title name
Current position : 00:45:00:01
Devide
CUT
001 Chapter thumb nail A
002 Chapter thumb nail B
003 Chapter thumb nail C
004 Chapter thumb nail D
Focus is moved to target thumb nail with the left and right cursor keys
(C)
Edit navigation chapter creation
Selected title (still picture)
DVD-RAM
Original
PG title name
Current position : 00:45:00:01
Devide
CUT
001 Chapter thumb nail A
002 Chapter thumb nail B
003 Chapter thumb nail C
004 Chapter thumb nail D
Target thmb nail is deleted with [Quick/Delete]
(D)
Edit navigation chapter creation
Selected title (still picture)
DVD-RAM
Original
PG title name
Current position : 00:37:00:01
Devide
CUT
001 Chapter thumb nail A
002 Chapter thumb nail C
003 Chapter thumb nail D

FIG. 9

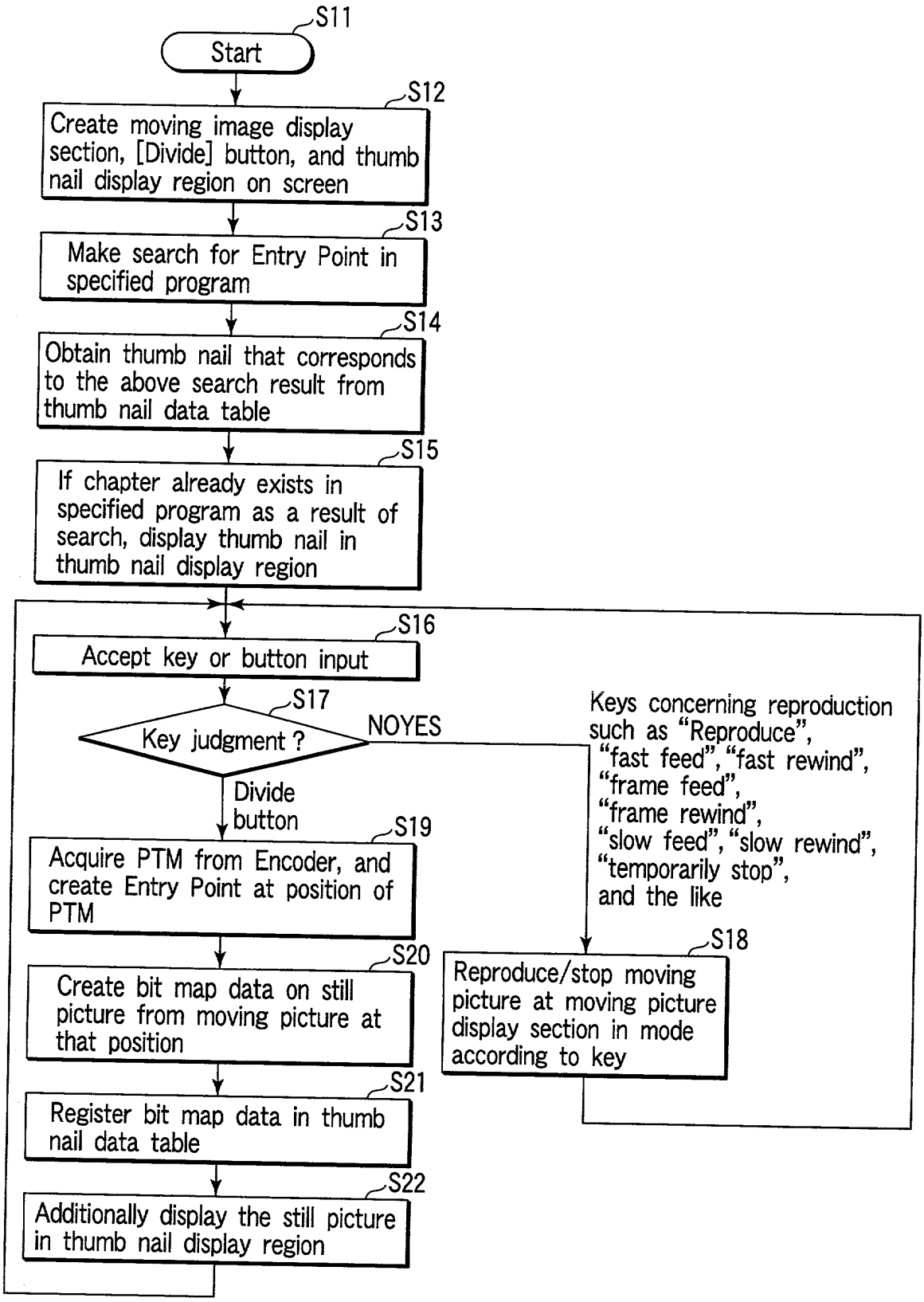
S11
Start
S12
Create moving image display section, [Divide] button, and thumb nail display region on screen
S13
Make search for Entry Point in specified program
S14
Obtain thumb nail that corresponds to the above search result from thumb nail data table
S15
If chapter already exists in specified program as a result of search, display thumb nail in thumb nail display region
S16
Accept key or button input
S17
Key judgment ?
NOYES
Divide button
Keys concerning reproduction such as "Reproduce", "fast feed", "fast rewind", "frame feed", "frame rewind", "slow feed", "slow rewind", "temporarily stop", and the like
S18
Reproduce/stop moving picture at moving picture display section in mode according to key
S19
Acquire PTM from Encoder, and create Entry Point at position of PTM
S20
Create bit map data on still picture from moving picture at that position
S21
Register bit map data in thumb nail data table
S22
Additionally display the still picture in thumb nail display region

FIG. 10

Program #	Cell #	Entry Point #	Pointer for data on thumb nail 1
Program #	Cell #	Entry Point #	Pointer for data on thumb nail 2
Program #	Cell #	Entry Point #	Pointer for data on thumb nail 3
.....	.....	.....	.....
.....	.....	.....	.....
Program #	Cell #	Entry Point #	Pointer for data on thumb nail 999
Bit map data on thumb nail 1			
Bit map data on thumb nail 2			
Bit map data on thumb nail 3			
.....			
.....			
Bit map data on thumb nail 999			

FIG. 11

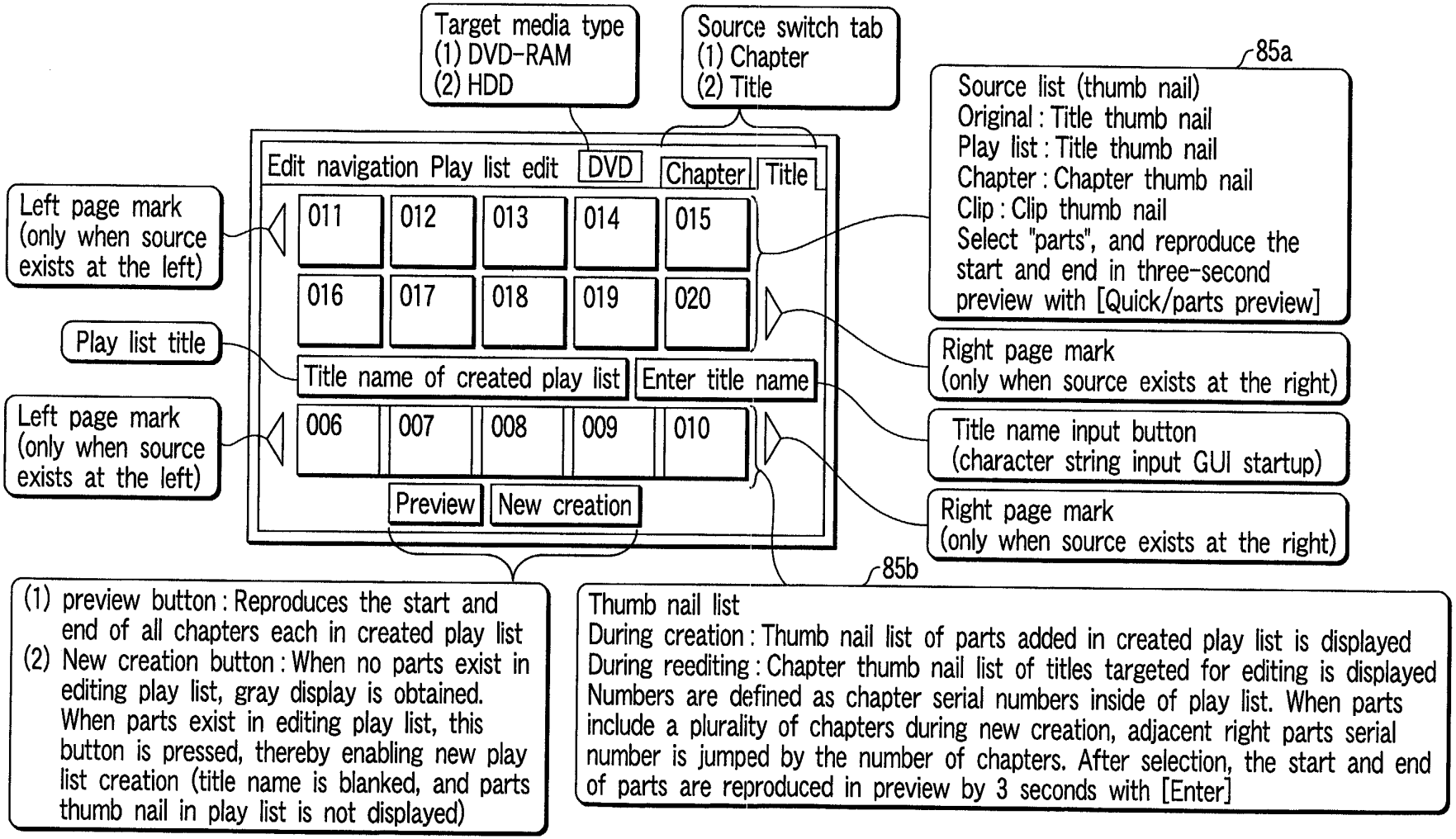
Target media type
(1) DVD-RAM
(2) HDD
Source switch tab
(1) Chapter
(2) Title
85a
Source list (thumb nail)
Original : Title thumb nail
Play list : Title thumb nail
Chapter : Chapter thumb nail
Clip : Clip thumb nail
Select "parts", and reproduce the start and end in three-second preview with [Quick/parts preview]
Edit navigation
Play list edit
DVD
Chapter
Title
011
012
013
014
015
016
017
018
019
020
Left page mark (only when source exists at the left)
Play list title
Title name of created play list
Enter title name
Left page mark (only when source exists at the left)
006
007
008
009
010
Preview
New creation
Right page mark (only when source exists at the right)
Title name input button (character string input GUI startup)
Right page mark (only when source exists at the right)
85b
(1) preview button : Reproduces the start and end of all chapters each in created play list
(2) New creation button : When no parts exist in editing play list, gray display is obtained. When parts exist in editing play list, this button is pressed, thereby enabling new play list creation (title name is blanked, and parts thumb nail in play list is not displayed)
Thumb nail list
During creation : Thumb nail list of parts added in created play list is displayed
During reediting : Chapter thumb nail list of titles targeted for editing is displayed
Numbers are defined as chapter serial numbers inside of play list. When parts include a plurality of chapters during new creation, adjacent right parts serial number is jumped by the number of chapters. After selection, the start and end of parts are reproduced in preview by 3 seconds with [Enter]

FIG. 12

JP2014-99650

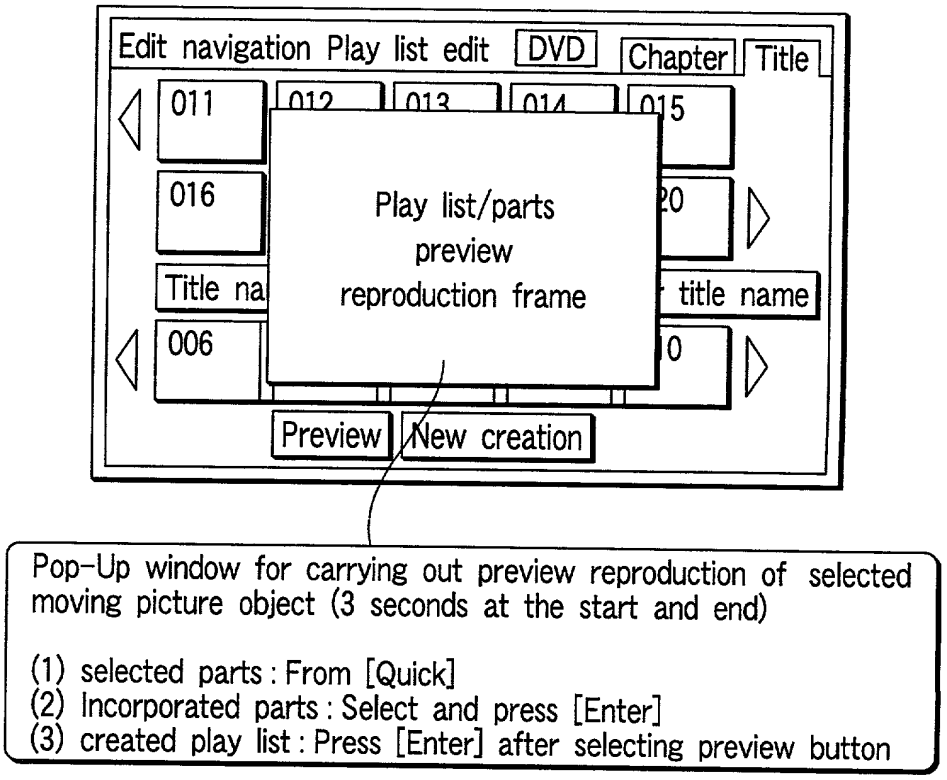

FIG. 13

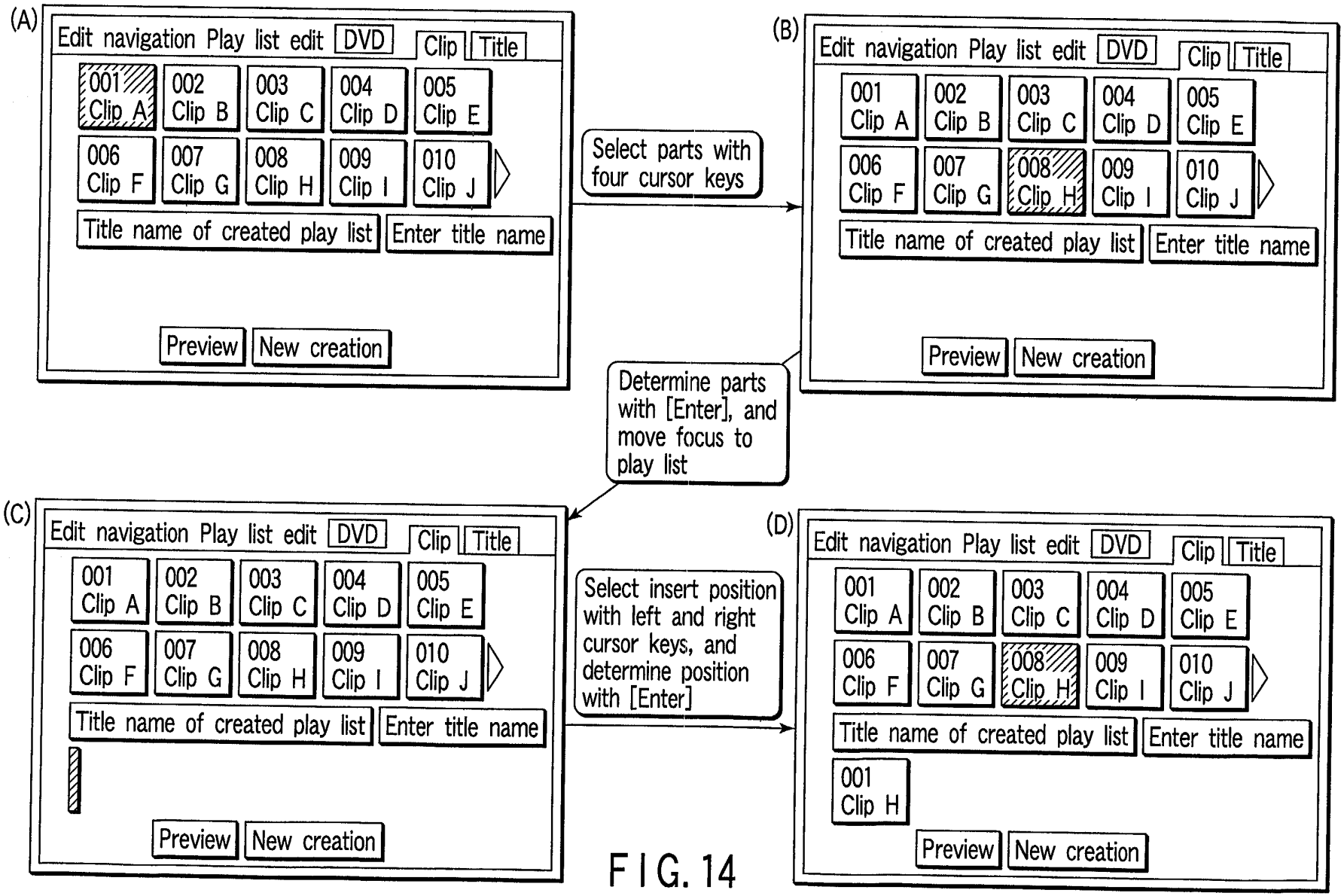
(A)
Edit navigation Play list edit DVD Clip Title
001 Clip A
002 Clip B
003 Clip C
004 Clip D
005 Clip E
006 Clip F
007 Clip G
008 Clip H
009 Clip I
010 Clip J
Title name of created play list
Enter title name
Preview
New creation
Select parts with four cursor keys
(B)
Edit navigation Play list edit DVD Clip Title
001 Clip A
002 Clip B
003 Clip C
004 Clip D
005 Clip E
006 Clip F
007 Clip G
008 Clip H
009 Clip I
010 Clip J
Title name of created play list
Enter title name
Preview
New creation
Determine parts with [Enter], and move focus to play list
(C)
Edit navigation Play list edit DVD Clip Title
001 Clip A
002 Clip B
003 Clip C
004 Clip D
005 Clip E
006 Clip F
007 Clip G
008 Clip H
009 Clip I
010 Clip J
Title name of created play list
Enter title name
Preview
New creation
Select insert position with left and right cursor keys, and determine position with [Enter]
(D)
Edit navigation Play list edit DVD Clip Title
001 Clip A
002 Clip B
003 Clip C
004 Clip D
005 Clip E
006 Clip F
007 Clip G
008 Clip H
009 Clip I
010 Clip J
Title name of created play list
Enter title name
001 Clip H
Preview
New creation

FIG. 14

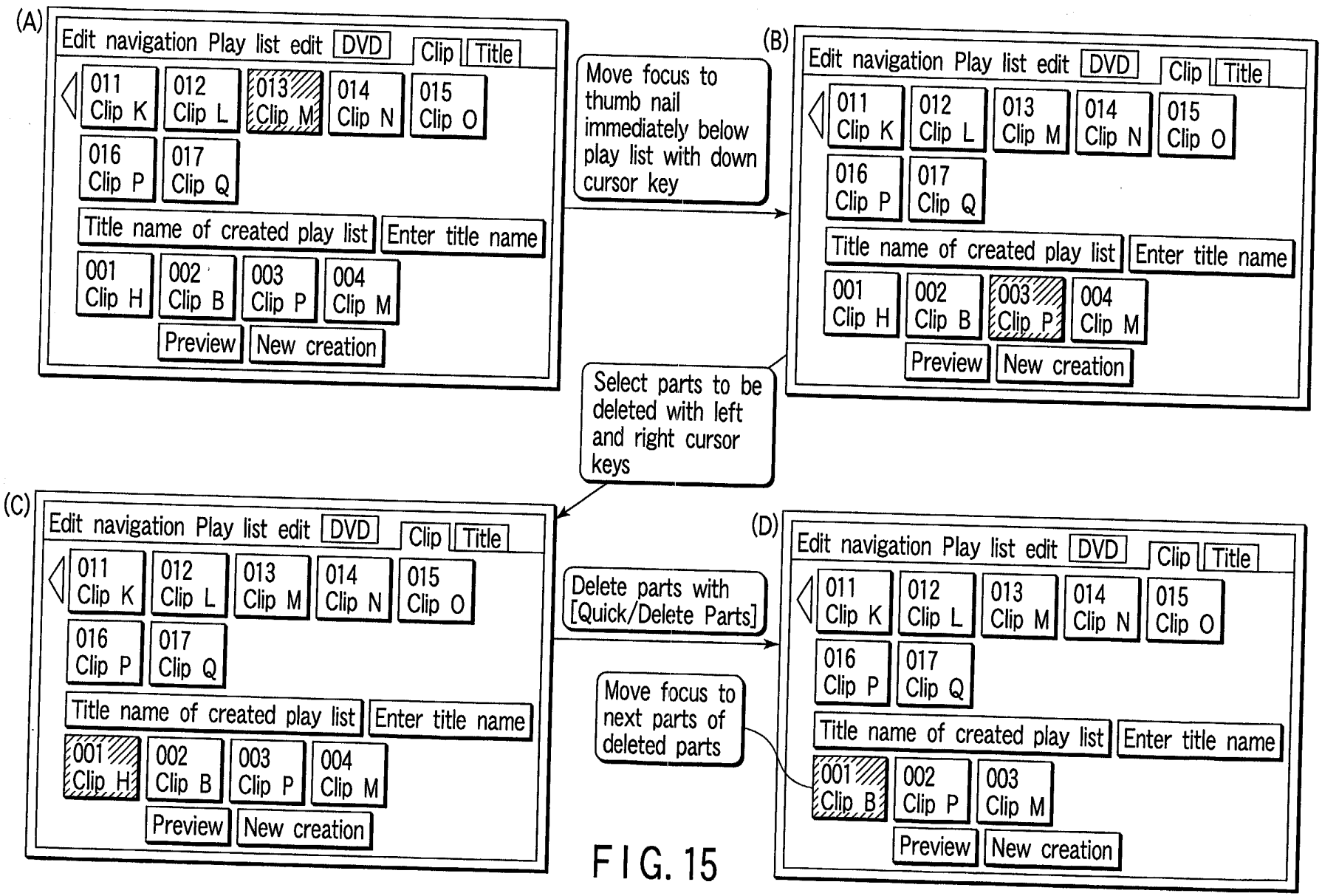
(A)
Edit navigation Play list edit DVD Clip Title
011 Clip K
012 Clip L
013 Clip M
014 Clip N
015 Clip O
016 Clip P
017 Clip Q
Title name of created play list
Enter title name
001 Clip H
002 Clip B
003 Clip P
004 Clip M
Preview
New creation
Move focus to thumb nail immediately below play list with down cursor key
(B)
Edit navigation Play list edit DVD Clip Title
011 Clip K
012 Clip L
013 Clip M
014 Clip N
015 Clip O
016 Clip P
017 Clip Q
Title name of created play list
Enter title name
001 Clip H
002 Clip B
003 Clip P
004 Clip M
Preview
New creation
Select parts to be deleted with left and right cursor keys
(C)
Edit navigation Play list edit DVD Clip Title
011 Clip K
012 Clip L
013 Clip M
014 Clip N
015 Clip O
016 Clip P
017 Clip Q
Title name of created play list
Enter title name
001 Clip H
002 Clip B
003 Clip P
004 Clip M
Preview
New creation
Delete parts with [Quick/Delete Parts]
Move focus to next parts of deleted parts
(D)
Edit navigation Play list edit DVD Clip Title
011 Clip K
012 Clip L
013 Clip M
014 Clip N
015 Clip O
016 Clip P
017 Clip Q
Title name of created play list
Enter title name
001 Clip B
002 Clip P
003 Clip M
Preview
New creation

FIG. 15

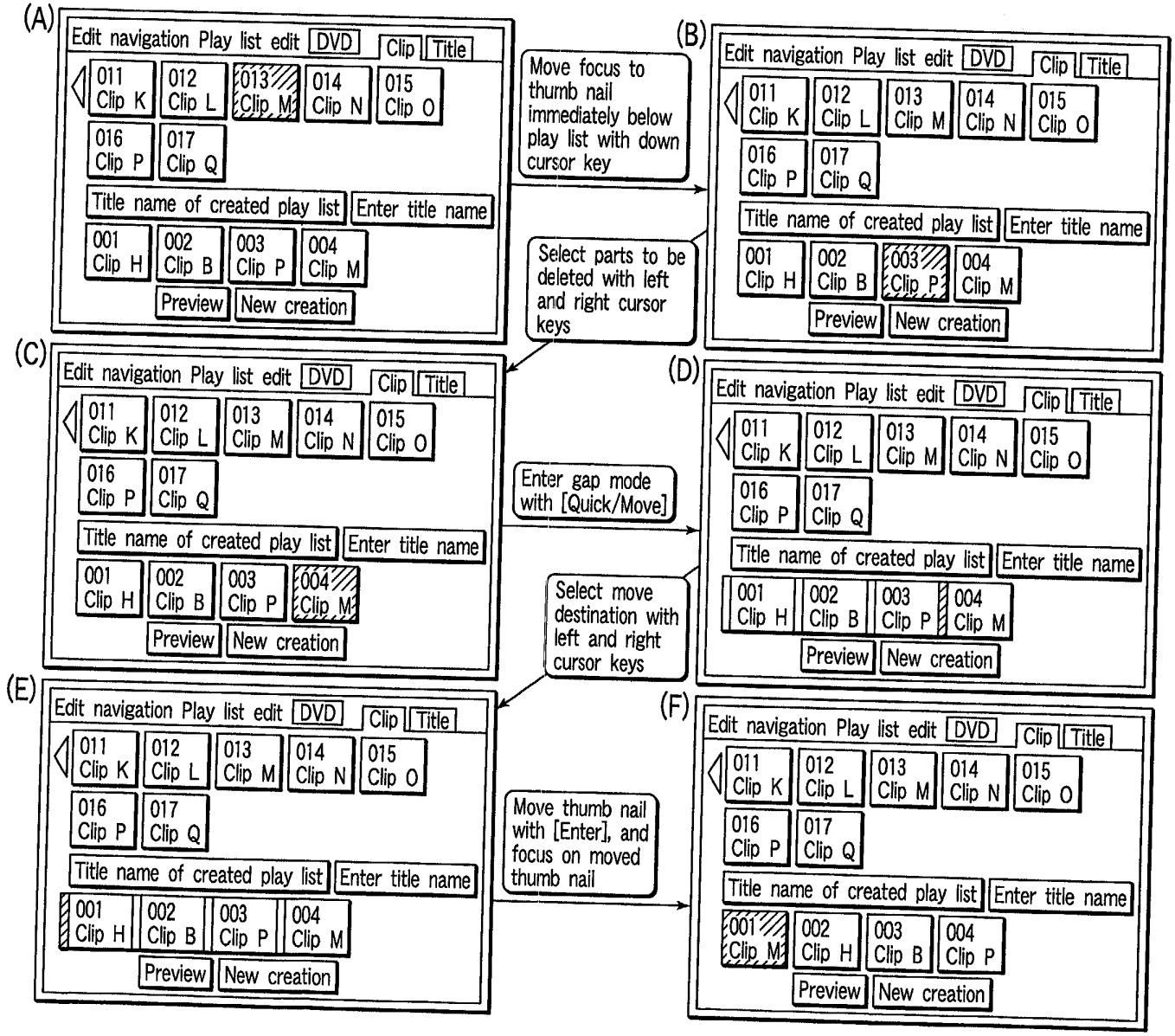
(A)
Edit navigation Play list edit DVD Clip Title
011 Clip K
012 Clip L
013 Clip M
014 Clip N
015 Clip O
016 Clip P
017 Clip Q
Title name of created play list
Enter title name
001 Clip H
002 Clip B
003 Clip P
004 Clip M
Preview
New creation
Move focus to thumb nail immediately below play list with down cursor key
(B)
Edit navigation Play list edit DVD Clip Title
011 Clip K
012 Clip L
013 Clip M
014 Clip N
015 Clip O
016 Clip P
017 Clip Q
Title name of created play list
Enter title name
001 Clip H
002 Clip B
003 Clip P
004 Clip M
Preview
New creation
Select parts to be deleted with left and right cursor keys
(C)
Edit navigation Play list edit DVD Clip Title
011 Clip K
012 Clip L
013 Clip M
014 Clip N
015 Clip O
016 Clip P
017 Clip Q
Title name of created play list
Enter title name
001 Clip H
002 Clip B
003 Clip P
004 Clip M
Preview
New creation
Enter gap mode with [Quick/Move]
(D)
Edit navigation Play list edit DVD Clip Title
011 Clip K
012 Clip L
013 Clip M
014 Clip N
015 Clip O
016 Clip P
017 Clip Q
Title name of created play list
Enter title name
001 Clip H
002 Clip B
003 Clip P
004 Clip M
Preview
New creation
Select move destination with left and right cursor keys
(E)
Edit navigation Play list edit DVD Clip Title
011 Clip K
012 Clip L
013 Clip M
014 Clip N
015 Clip O
016 Clip P
017 Clip Q
Title name of created play list
Enter title name
001 Clip H
002 Clip B
003 Clip P
004 Clip M
Preview
New creation
Move thumb nail with [Enter], and focus on moved thumb nail
(F)
Edit navigation Play list edit DVD Clip Title
011 Clip K
012 Clip L
013 Clip M
014 Clip N
015 Clip O
016 Clip P
017 Clip Q
Title name of created play list
Enter title name
001 Clip M
002 Clip H
003 Clip B
004 Clip P
Preview
New creation

FIG. 16

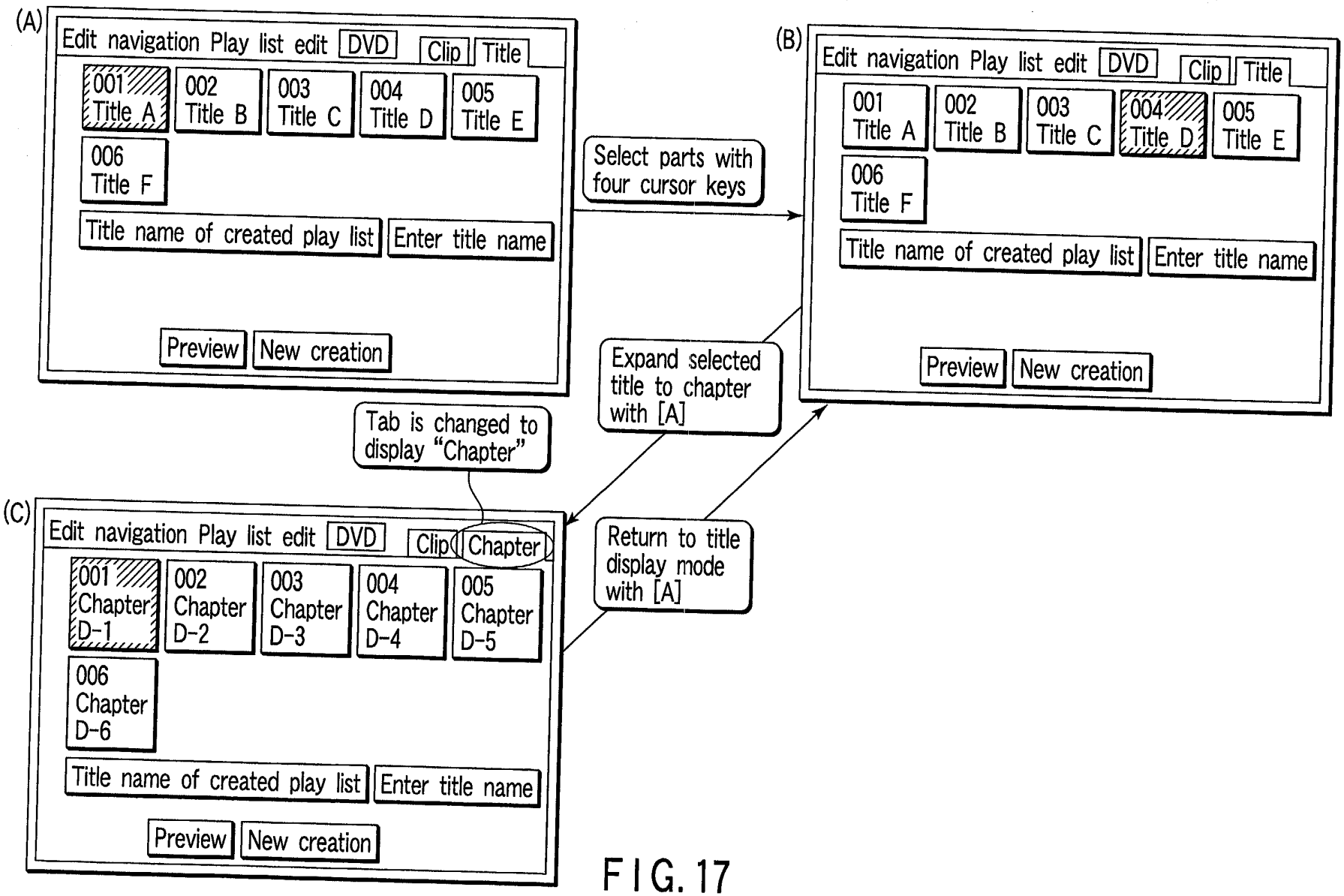
(A)
Edit navigation Play list edit DVD Clip Title
001 Title A
002 Title B
003 Title C
004 Title D
005 Title E
006 Title F
Title name of created play list
Enter title name
Preview
New creation
Select parts with four cursor keys
(B)
Edit navigation Play list edit DVD Clip Title
001 Title A
002 Title B
003 Title C
004 Title D
005 Title E
006 Title F
Title name of created play list
Enter title name
Preview
New creation
Expand selected title to chapter with [A]
Tab is changed to display "Chapter"
Return to title display mode with [A]
(C)
Edit navigation Play list edit DVD Clip Chapter
001 Chapter D-1
002 Chapter D-2
003 Chapter D-3
004 Chapter D-4
005 Chapter D-5
006 Chapter D-6
Title name of created play list
Enter title name
Preview
New creation

FIG. 17